Office of the Secretary
Federal Communications Commission
Washington, D.C. 20554

March 15, 1996

To Whom It May Concern,

This memorandum constitutes comments on WT Docket number 96-1 in the matter of the Commission's Rules to Permit Automatic Operation of Aeronautical Advisory Stations (Unicoms). I am an Airline Transport Pilot and Certified Flight Instructor. I have operated a small flight school on Potomac Airfield, in Friendly, Maryland, for the last year and a half and usually operate on the Potomac / Hyde Airfield unicom frequency between 8 to 14 hours per week. In the past 19 years of flying, 15 as an instructor, I have flown into and out of many controlled and uncontrolled airfields and fully understand the operating characteristics of the current and subject systems.

The Automated Unicom System, as installed at Potomac and Bay Bridge Airports, is the safest and most efficient advisory operation of those currently available at uncontrolled airfields (attended unicom and AWOS/ASOS with/without attended unicom). There are several reasons for this:

1.) Reliability. On the order of 97% of the time or greater, the Automatic Advisory System responds with a prioritized standard set of advisory information. Attended unicom reliability is a function of the operating agency, the workload of the operator and the time of day. At most airports that have an attended unicom advisory service, a Fixed Base Operator (FBO) is the operating agency. The actual operator is usually only available to provide advisories when not pumping fuel, moving planes, waiting on customers or performing functions that more directly generate revenue for the FBO. Given that, about 50% of the time that a pilot requests advisory information from attended unicoms, he/she actually receives a response. AWOS/ASOS reliability has long been a popular topic of discussion and is below that of the Automated Advisory System.

2.) Complete Information. Many unicom operators providing advisory information to pilots are not pilots and have received little training on advisory information's importance to piloting safety, nor have they received training in proper radio procedures. When a pilot calls an attended unicom for an airport advisory and receives "Runway 4 is active" it leaves him with several safety of flight related questions. Was that a response to my request? Is that information for my destination airport? What is the wind direction and velocity ? Are the winds gusty or shifting? ... When a pilot arrives at an airport with no advisory service available, or receives no response or incomplete information from an attended unicom, he should overfly the airport to determine wind direction and velocity from a windsock or other wind indicating device usually located near the airport center. Regulations and procedures covering airport overflights are vague and conflicting. The result is a high potential for aircraft converging from different

directions at the center of the airport at pattern altitude all looking down at the airport surface. This is a very dangerous situation.

3.) All on one frequency. A pilot's peak workload period in flight is transitioning from en route navigation to preparations for landing. Oftentimes an en route or terminal radar controller will release a pilot from the control frequency within a minute of arrival at his destination airport. This gives a pilot flying a minimally equipped aircraft little opportunity to tune in and monitor an AWOS/ASOS (it usually requires listening to two or three iterations of the information to get it all) then retune to the unicom frequency to listen for other traffic and make position calls. Experienced pilots in well-equipped aircraft often end up foregoing some or all of the above processes due to the time and higher priority piloting requirements. Student pilots, who nearly always fly minimally equipped aircraft, are easily overwhelmed with rapid frequency changes, information absorption, position reporting, and looking for traffic while flying an airplane. Receiving advisory information on the same frequency that he monitors and makes position reports on is not only more convenient, but also allows a pilot to monitor the traffic advisories longer to get a better feel for the traffic density and positions of other aircraft in the vicinity.

4.) Superior Radio Check. When a pilot hears his own radio transmission played back to him, he fully understands how well he is broadcasting and receiving. Third party descriptions of signal quality or problems often leave a pilot with an incomplete understanding of what he really sounds like. Pilots working through radio problems with radio check stations often tie up unicom frequencies for lengthy periods with a discourse annoying to other pilots monitoring the unicom.

In response to the issues on which comments are specifically requested, the following is provided:

13a.) The Automated Advisory System at Potomac Airfield monitors the unicom frequency prior to transmitting. If the automatic transmission is in response to a 3 or 4 "click" request for information, the system should and does check the frequency and respond immediately if it senses no activity. If it senses activity, the system should and does delay transmitting until the frequency is clear. If a unicom frequency is clear for 1 to 2 seconds, a pilot considers it clear to transmit. A three second wait time for requested information invites other pilots to pre-empt the automated reply, requiring the requesting pilot to reclick his request which leads to frustration and frequency congestion. Automated systems should therefore respond immediately if the unicom frequency is clear. Additionally, to preclude overriding potentially time critical traffic advisory broadcasts from pilots, automated advisories should be set to a transmitting power less than that of the average general aviation aircraft radio.

13b.) Since the automated unicom station is a developmental system, the installation at Potomac broadcasts brief user instructions on the unicom frequency after the system senses a lengthy idle period. The broadcast of these instructions for pilots unfamiliar with the system will remain necessary until the system becomes standardized, more proliferated and publicized, and there are markings on aviation navigational charts and directories indicating which airports have automated unicom service. There should be no conflict between automated advisory services and pilot-controlled lighting (PCL) operating on the same frequency. One reason for the lack of conflict is that PCL usually

operates after dusk and before dawn when traffic at uncontrolled airports is usually very light. Additionally automated advisories operate on 3 and 4 clicks and PCL usually can be set to operate on 5 or 7 clicks, if non-simultaneous operation is desired. Each imaginable scenario of unintentional activation of one service while intending to activate the other, results in a positive or at worst a "so what" outcome. Most pilots would welcome the capability to activate PCL and get a field advisory simultaneously with 3 button clicks.

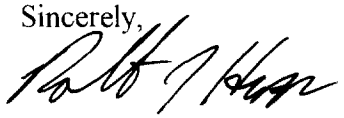
13c.) In one and a half years of automated unicom usage at Potomac Airfield, I have never heard it create a "hot mike" condition where it dominated the local unicom frequency. It never transmits when there is activity on the frequency and its broadcasts are all standard and succinct. The amount of information included in an automated advisory is tailored to how busy the system senses the unicom frequency to be. The busier the frequency, the shorter the advisory. Most automated advisory broadcasts on an average flying day are 10 -15 seconds. As weather conditions warrant longer advisories, the longer automated broadcasts rarely create a problem because the same conditions that trigger longer advisories usually keep many general aviation pilots on the ground. Even the longest advisories do not exceed 30 seconds. If the automated unicom broadcasts for more than 40 seconds, it is probably malfunctioning (I have never witnessed it) and needs to shut down.

13d.) The Commission should not limit the number of advisories issued by an automated advisory station. Legislating reductions to the utility and reliability of automated advisory services will create confusing and potentially unsafe conditions for pilots who depend on the service. The Commission should define the operating parameters that insure future automated advisory service installations are equally as courteous and considerate in their use of the unicom frequencies. These parameters should be:

a. Transmitting only when the frequency is clear.
b. No transmissions over 30 seconds.
c. Broadcast power less than that of the average general aviation aircraft radio.

Providing field advisory information to pilots rapidly, efficiently and reliably with properly administered automated advisory systems will provide the millions of general aviation pilots and passengers with a quantum leap in safety services they deserve. If you have any further questions please feel free to contact me at (730) 614-2257 during the day and (703) 913-2971 in the evenings.

Sincerely,



Robert J. Hepp